

AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions and listings of claims in the application:

LISTING OF CLAIMS:

1. (Canceled).

2. (Currently Amended): ~~The~~ A method for transferring MPOA packets in an ATM network~~according to claim 1~~, the method comprising:

determining by an MPOA server, which has received an address resolution request packet from an MPOA client, whether or not said address resolution request packet is to be forwarded to another MPOA server or another MPOA client based on layer 3 packet filter information;

transmitting by said MPOA client a source layer 3 address of the data packet that is to be a short cut, said source layer 3 address being added as an extension to the MPOA address resolution request packet; and

determining by said MPOA server whether or not said MPOA address resolution request packet is to be forwarded to the other MPOA server or the other MPOA client based on said source layer 3 address placed in the extension and a destination layer 3 address in the MPOA address resolution request packet received from said MPOA client, after verifying the layer 3 packet filter information,

wherein when the source layer 3 address is not included in the MPOA address resolution request packet, establishing a shortcut between MPOA source client and MPOA destination client and when the source layer 3 address is included in the MPOA address resolution request

packet, comparing the source layer 3 address with the destination layer 3 address thereby determining whether communication between the MPOA source client and the MPOA destination client is permitted.

3. (Currently Amended): The method for transferring MPOA packets according to claim ~~21~~, the method comprising:

said MPOA client notifying a source layer 3 address processor by a client MPOA packet processor in said MPOA client of a MPOA address resolution request operation and a source layer 3 address information;

said MPOA client judging by the source layer 3 address processor about whether or not an outer instruction of said MPOA address resolution request operation directs including the source layer 3 address in the MPOA packet extension; and

said MPOA client transmitting to an MPOA server by a client MPOA packet transmitting portion the MPOA address resolution request packet with the MPOA packet extension added at said client MPOA packet processor.

4. (Currently Amended): The method for transferring MPOA packets according to claim ~~42~~, the method comprising:

a MPOA packet receiving portion of said MPOA server receiving the MPOA address resolution request packet from said MPOA client;

a MPOA packet processor of said MPOA server checking about whether or not the source layer 3 address is included in the received MPOA address resolution request packet; and

when said source layer 3 address is included, said server MPOA packet processor obtaining the source layer 3 address and a destination layer 3 address;

a layer 3 filter retrieving portion retrieving a layer 3 filter information using said source layer 3 address and said destination layer 3 address as the key;

said server MPOA packet processor judging whether or not to permit passage of the filter; and

directing the execution of error processing,

wherein when passage of said filter is not permitted, directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client.

5. (Previously Presented): The method for transferring MPOA packets according to claim 4, wherein the error processing is a process for transmitting the MPOA packet which indicates that the address resolution has been failed toward the MPOA client.

6. (Canceled).

7. (Currently Amended): A system for transferring multi-protocol over asynchronous transfer mode (MPOA) packets in an asynchronous transfer mode (ATM) network, said system including a server, the server comprising:

an MPOA packet receiving portion configured to receive an address resolution request packet from an MPOA client; and

an MPOA packet processor configured to determine, based on layer 3 packet filter information, whether or not the address resolution request packet is to be forwarded, the forwarding being directed toward at least one of another MPOA server and another MPOA client~~The system of claim 6,~~

wherein the MPOA client is configured to transmit a source layer 3 address of the data packet that is to be a short cut, the source layer 3 address being added as an extension to the MPOA address resolution request packet, ~~and~~

wherein said MPOA server is configured to determine, based on the source layer 3 address placed in the extension and a destination layer 3 address in the MPOA address resolution request packet received from the MPOA client, whether or not the MPOA address resolution request packet is to be forwarded, after verifying the layer 3 packet filter information,

wherein when the source layer 3 address is not included in the MPOA address resolution request packet, establishing a shortcut between MPOA source client and MPOA destination client and when the source layer 3 address is included in the MPOA address resolution request packet, comparing the source layer 3 address with the destination layer 3 address thereby determining whether communication between the MPOA source client and the MPOA destination client is permitted.

8. (Currently Amended): The system of claim 7~~6~~, comprising:

the MPOA client configured to notify a source layer 3 address processor by a client MPOA packet processor in the MPOA client of a MPOA address resolution request operation and a source layer 3 address information;

the MPOA client configured to judge by the source layer 3 address processor whether or not an outer instruction of said MPOA address resolution request operation directs including the source layer 3 address in the MPOA packet extension; and

said MPOA client configured to transmit to an MPOA server by a client MPOA packet transmitting portion the MPOA address resolution request packet with the MPOA packet extension added at the client MPOA packet processor.

9. (Currently Amended): The system of claim 76, comprising:

said MPOA packet processor of said MPOA server checking whether or not the source layer 3 address is included in the received MPOA address resolution request packet; and

said server MPOA packet processor configured to obtain, when said source layer 3 address is included, the source layer 3 address and a destination layer 3 address;

a layer 3 filter retrieving portion arranged in the server, said layer 3 filter retrieving portion configured to retrieve a layer 3 filter information using the source layer 3 address and the destination layer 3 address as the key;

said server MPOA packet processor configured to judge whether or not to permit passage of the filter and to direct the execution of error processing,

wherein when passage of said filter is not permitted, directing the execution of processing for forwarding the received MPOA address resolution packet to the other MPOA server or the other MPOA client.

10. (Previously Presented): The system of claim 9, wherein the error processing is a process for transmitting the MPOA packet which indicates that the address resolution has been failed toward the MPOA client.

11. (Currently Amended): A method for transferring MPOA packets in an ATM network, the method comprising:

~~a determination step of determining~~ by an MPOA server which has received an address resolution request packet which includes a source layer 3 address from an MPOA client whether or not said address resolution request packet is to be forwarded to another MPOA server or another MPOA client based on layer 3 packet filter information,

wherein said source layer 3 address is held in an extension of said address resolution request packet so as to allow an MPOA server which is incapable of performing said ~~determination step~~ to communicate said address resolution request packet with said MPOA client,

wherein when the source layer 3 address is not included in the MPOA address resolution request packet, establishing a shortcut between MPOA source client and MPOA destination client and when the source layer 3 address is included in the MPOA address resolution request packet, comparing the source layer 3 address with the destination layer 3 address thereby determining whether communication between the MPOA source client and the MPOA destination client is permitted.

12. (New) The method according to claim 2, wherein the layer 3 packet filter information comprises information for determining whether a data packet is permitted to pass through based on the source layer 3 address and the destination layer 3 address.

13. (New) The method according to claim 12, wherein the source layer 3 address and the destination layer 3 address are subnet numbers.

14. (New) The method according to claim 2, wherein the extension to the MPOA address resolution request packet is a vendor private extension of an MPOA control packet.